

ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS 61301

Information submitted in response to
MONSANTO letter of January 7, 1972, in
connection with --

"Special undertaking of purchasers of
poly chlorinated byphenyls"

January 10, 1972

MONS 044091

ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS 61301

I N D E X

	<u>Exhibit</u>
Uses for PCB's and the disposition or re-distribution by Electrical Utilities of its PCB-containing products	1
Dollar value of Electrical Utilities' PCB-containing products and Electrical Utilities' other sales volume	2
Number and location of Electrical Utilities' consuming plants and any distribution network	3
Security measures in effect by Electrical Utilities to protect against misuse, spillage, or other escape to environment	4
Electrical Utilities' policy with respect to notification of its customers as to possible hazards of PCB's	5
Electrical Utilities' quality control procedures for PCB-containing products	to be submitted for examination
Statistical data on Electrical Utilities' experience with frequency of leaking of PCB-containing products	6

ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS 61301

EUC uses P C B's in the manufacture of hermetically sealed power and general purpose A.C. capacitors.

Specifically, these capacitors find application in the following categories:

1. Fluorescent and Mercury Vapor ballast
2. General purpose motor run
3. Air-conditioning motor run
4. Welder power factor correction
5. Filter
6. Commutating
7. Power

Induction heating primary

1/10/72

MONS 044093

ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS 61301

DOLLAR VOLUME OF EUC PCB CONTAINING PRODUCTS AND

OTHER SALES VOLUME FOR OUR LAST TWO FISCAL YEARS *(include July 51)*

IS AS FOLLOWS:

	<u>F/Y</u> <u>1970</u>	<u>F/Y</u> <u>1971</u>
PCB Sales	\$7,726,172	\$4,889,548
Other Sales*	1,042,738	946,092
Total Sales	\$8,768,910	\$5,835,640
% PCB/Total	88%	84%

*Halowax impregnated paper and dry Polyester film types.

1/10/72

MONS 044094

ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS 61301

The Electrical Utilities Company operates
from one location at --

2427 St. Vincents Avenue
LaSalle, Illinois 61301

All materials purchased from Monsanto are
consumed in industrial processing for
capacitors sold almost exclusively to OEM
accounts.

No stocks are maintained at any other lo-
cation, and shipments are made via common
carrier to its customers.

January 10, 1972

MONS 044095

PROCEDURES FOR HANDLING PCB's at EUC

Material (Aroclor 1016) transported from Krummrich Plant to LaSalle in reinforced stainless steel tank truck leased by EUC for this specific purpose only. The tank is sealed and locked during transport. It is carefully inspected for possible leaks on arrival at EUC, and again prior to being returned to Monsanto for refill.

The fluid is pumped from the tank to the EUC refining system through a continuous 2" galvanized pipeline; and stored under nitrogen until required. The refining system is essentially a duplicate of that described in Monsanto Bulletin O/FF-10 - Adsorptive Refining of Askarel Fluids. This is a completely sealed system. An in-line test cell is used to monitor the refining process. This set-up follows in detail Monsanto Bulletin O/FF-12 - In-line Measurement of Electrical Properties of Flowing Dielectrics. The refined material is stored in an insulated stainless steel sealed tank.

For use, the fluid is transferred from storage to impregnating tanks using vacuum (1-1/2" galvanized lines). After the impregnation cycle, the used material is transferred from the impregnators to a sealed holding tank, under vacuum. As required, it is pumped back to the mixer tank of the refining system for re-purification.

On opening the impregnating tanks there is some drainage from the floor of the tank and from the door. This fluid is caught on

trays. The pallet loads of baskets of capacitors are transferred by lift truck to special skids which are also fitted with catch trays. All trays are emptied to a receiving tank daily. This material is preprocessed in a separate system prior to being transferred to the mixer tank of the refining system for final up-grading. Any accidental spills are adsorbed with "Oil Dry". The resulting material is put into boxes, sealed, and transported to a state-approved sanitary landfill.

The finished capacitors are degreased following the plugging of the fill holes. The degreasing solvent is distilled 2 to 3 times per week. The residue containing Aroclor is placed in drums, sealed, and periodically shipped to Nuclear Engineering Company, Sheffield, Illinois, for disposal. Nuclear Engineering Company is State approved for disposal of toxic and radioactive waste.

Rejected capacitors (shorts, grounds, etc.) are opened by qualified EUC personnel. The fluid is drained into receiving tanks for analysis and eventual re-processing - in those systems described above. All ~~solid~~^{liquid} waste is boxed and sent to the state-approved sanitary landfill.

All the impregnating tanks and associated work areas are covered by fume-collecting hoods leading to exhaust fans and roof stacks. Until now any Aroclor fumes were thus exhausted to the

atmosphere. We are in contact with Monsanto Enviro-Systems Division in order to pursue a feasibility study of installation of stack filters for these exhaust systems.

We are also pursuing with a local laboratory - Carus Chemical Company Water Analysis Laboratory - a study of the PCB control of the plant effluent. In anticipation, we have obtained from Monsanto blueprints and specifications for the separator-sump in operation at the Krummrich plant. We propose the construction of a similar, but smaller scale sump at EUC. This work will go forward very shortly.

We have used cloth towels, rags, etc. throughout the plant for wiping rags, etc. Realizing that these may convey PCB's into the city sewage system - by way of the laundering process - we are shifting entirely to paper, which will be disposed of in the state approved sanitary landfill.

E. M. Moore
E. M. Moore, Ph. D.
Director of Research & Development

January 10, 1972

ELECTRICAL UTILITIES COMPANY

phone 223-1732
fax 910-842 3947

MANUFACTURERS OF QUALITY CAPACITORS

LA SALLE, ILLINOIS

61301

December 3, 1970

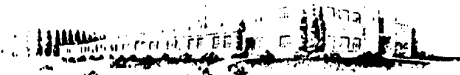
Subject: ASKAREL IMPREGNATED CAPACITORS

Our Management and Engineering staff have been in numerous negotiations with staff members of the Monsanto Company of St. Louis, Missouri.

Most EUC customers know that the Monsanto Company is the sole producer of the dielectric materials used in the capacitor industry. Specifically, the chemical is known in our industry as Askarel. The Monsanto trade name is Aroclor. Basically it is a chlorinated aromatic hydrocarbon, "Polychlorinated Biphenyl" -- "PCB" for short. I will not go into the involved chemistry of these materials or their dielectric properties at this time; or their involvement in the most recent illumination of "Ecology".

The negotiations which I refer to above have culminated in many faceted decisions by the chemical industry, and indeed will affect the capacitor industry, and - more directly - have a bearing on users of capacitors. Several important considerations have emerged to date - how they affect the art of the capacitor industry, the product, and the ultimate cost consequence. Permit me to state the facts, and how they appear to me:

1. Due to the inherent lasting effects of some of these "PCB" compounds, the accumulated waste products which we collect daily can no longer be disposed of except by ecologically approved methods. New methods of disposal have been prescribed, and regulations will undoubtedly be forthcoming. All will be costly.
2. The manufacturing of "PCB" is entering a new stage. We have been advised that in order to meet Ecology standards and pre-



MONS 044099

requisites processing costs will rise sharply. By January 1, 1971, this material used by the capacitor industry will have risen in price by 12%.

3. To further meet the stringent demand standards as envisaged by ecologists, the Monsanto Company is considering an aroclor which will minimize chemical toxicity.

This letter will probably be one of the first on the subject of inherent cost of capacitors. Suffice it to say, the cleaning up of our environment must be borne by man - the present as well as future generations. Neither can this cost be assumed by one single industry, nor a combination of a few. This letter is a forerunner of others which will keep our customers informed of what is in store for all of us.

I can assure you that we here at EUC have been viewing this subject with due concern, but we feel that we are part of the whole society. We shall share our responsibility of living in today's world.

Please do not hesitate to communicate with me on this highly controversial subject.

Most cordially yours,

ELECTRICAL UTILITIES COMPANY

A. O. Bauser
A. O. Bauser
President

AOH:mw

PS. May I invite you to read the December, 1970, issue - Volume 138, No. 6, of National Geographic "The Ecological Crisis" - especially pages 765 and 766.

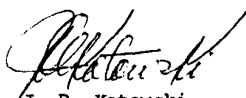
ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS 61301

(2087)
Oil Leakers in Oval and Block (slugs/can-capacity)
Production for....Fiscal Year

1 9 7 1

(August, 1970 thru July, 1971)

<u>TYPE</u>	<u>AMOUNT</u>	<u>PLUG</u>	<u>%</u>	<u>COVER</u>	<u>%</u>	<u>MISC.</u>	<u>%</u>	<u>TOTAL</u>	<u>%</u>
LARGE BLOCK	36,184	31	.09	182	.50	119	.33	332	.9
LONG JOHN	5,854	6	.10	34	.58	13	.22	53	.9
GREG OVAL	199,406	549	.28	495	.25	659	.33	1,703	.8
SMALL OVAL (LS)	1,110,282	3,491	.31	2,809	.25	1,962	.18	8,262	.7
COMM. CAPS.	11,045	18	.16	53	.48	58	.53	129	1.1
ROUNDS	37,282	273	.73	636	1.71	736	1.97	1,645	4.4
SMALL BLOCK	2,015	9	.45	15	.74	19	.94	43	2.1
FLAT OVAL	477,426	1,219	.26	1,594	.33	1,557	.33	4,370	.9
SMALL OVAL (SS)	3,481	53	1.52	112	3.22	10	.29	175	5.0
BATHTUBS	11,460	0	0	716	6.25	39	.34	755	6.5
BAKE. TUBULARS	1,856	51	2.75	4	.22	35	1.89	90	4.8
Totals.....	1,896,291	5,700	.30	6,650	.35	5,270	.28	17,557	.9


J. D. Kotowski
January 11, 1972

ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS 61301

Oil Leakers in Oval and Block
Production for....Fiscal Year

1 9 7 0

(August, 1969 thru July, 1970)

<u>TYPE</u>	<u>AMOUNT</u>	<u>PLUG</u>	<u>%</u>	<u>COVER</u>	<u>%</u>	<u>MISC.</u>	<u>%</u>	<u>TOTAL</u>	<u>%</u>
LARGE BLOCK	79,245	103	.13	354	.45	287	.36	744	.9
LONG JOHN	24,666	52	.21	132	.54	39	.16	223	.9
GREG OVAL	369,564	1,251	.34	783	.21	725	.20	2,759	.7
SMALL OVAL (LS)	2,147,002	7,343	.34	2,747	.13	1,599	.07	11,689	.5
ROUNDS	75,114	388	.52	190	.25	84	.11	662	.8
COMM. CAPS.	32,944	29	.09	59	.18	87	.26	175	.5
SMALL BLOCK	6,798	23	.34	60	.88	10	.10	93	1.5
FLAT OVAL	783,003	2,092	.27	2,617	.33	1,813	.23	6,522	.8
SMALL OVAL (SS)	1,935	17	.88	328	16.95	2	.10	347	17.9
BATHTUBS	17,207	0	0	832	4.84	42	.24	874	5.0
BAKE. TUBULARS	883	89	10.08	65	7.36	12	1.36	166	18.8
METAL TUBULARS	3,715	81	2.18	21	.57	0	0	102	2.7
Totals.....	3,542,076	11,468	.32	8,188	.23	4,700	.13	24,356	.6


J. D. Kotowski
January 11, 1972

MONS 044102

ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS 61301

(sum)
OIL LEAKERS IN KVA PRODUCTION FOR
FISCAL YEAR1970

(AUGUST, 1969 thru JULY, 1970)

TOTAL NO.
OF PIECES

3,311

TOTAL NO.
OF REJECTS

406

%
REJECTS

12.3

ALL UNITS WERE REPAIRED

*Large units
- Leakers are
really not
leakers - they
are trapped air
voids.*

OIL LEAKERS IN KVA PRODUCTION FOR
FISCAL YEAR.....1971

(AUGUST, 1970 thru JULY, 1971)

TOTAL NO.
OF PIECES

962

TOTAL NO.
OF REJECTS

167

%
REJECTS

17.4

ALL UNITS WERE REPAIRED

MONS 044103

J. D. Kotowski
J. D. Kotowski
January 11, 1972

ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS 61301

STATISTICAL DATA ON FIELD RETURNS

LEAKERS ONLY

FISCAL YEAR - 1971

	<u>Pieces Sold</u>	<u>Leakers Returned</u>
Air Conditioning, Motor Run, Fluorescent Ballast, Commutating, Welder, (General Purpose A.C.)	1,900,126	27
Power Capacitors (KVA)	965	32

1/10/72

MQNS 044104

INTERNAL PLANT SCRAP LOSS

SCRAP LOSS CHARGES CONTAIN: MATERIAL,
DIRECT LABOR, AND MFG. BURDEN

ELECTRICAL UTILITIES CO.

%% SCRAP LOSS/NET SALES

MONS 044105

